

## WE CLAIM:

1. A method for supplying electrical power to a load using first and second power supplies each coupled with said load, said load characterized by an electrical power requirement, said method comprising:
  - (a) supplying electrical power to meet said electrical power requirement such that said first power supply supplies a portion of said electrical power not supplied by said second power supply;
  - (b) detecting failure of said second power supply;
  - (c) adjusting said first power supply to supply said electrical power requirement upon said detection; and
  - (d) preventing said first power supply from supplying more than said portion of said electrical power not supplied by said second power supply where said second power supply has not failed.
2. The method of Claim 1, wherein said preventing further comprises preventing said first and second power supplies from exceeding said electrical power requirement.
3. The method of Claim 1, further comprising:
  - (e) deactivating said first and second power supplies upon detection of failure of said load.
4. The method of Claim 1, further comprising:
  - (e) applying input power to said first and second power supplies;
  - (f) at least one of adding and removing one of said first and second power supplies;
  - (g) monitoring for a failure during (e) and (f); and
  - (g) deactivating said input power to said first and second power supplies in response to detection of said failure.
5. The method of Claim 1, wherein said load comprises a circuit board coupled with a first backplane, said method further comprising:

(e) coupling said first and second power supplies with a second backplane, said first backplane being coupled with said second backplane.

6. A system for supplying electrical power to a load<sup>104</sup> characterized by an electrical power requirement, said system comprising:
  - <sup>502</sup> first and second power supplies coupled with said load and operative to supply electrical power to meet said electrical power requirement such that said first power supply supplies a portion of said electrical power not supplied by said second power supply;
  - <sup>506/508/518</sup> a power supply controller coupled with said first and second power supplies and <sup>N. A. B.</sup> said load monitor and operative to detect failure of said second power supply, said power supply controller being further operative to adjust said first power supply to supply said electrical power requirement upon failure of said second power supply and prevent said first power supply from supplying more than said portion of said electrical power not supplied by said second power supply where<sup>n</sup> said second power supply has not failed.
7. The system of Claim 6, wherein said power supply controller is further operative to prevent said first and second power supplies from exceeding said electrical power requirement.
8. The system of Claim 6, wherein <sup>N. A. B.</sup> said load monitor is further operative to detect failure of said load, said power controller operative to deactivate said first and second power supplies upon detection of said failure of said load.
9. The system of Claim 6, further comprising:
  - <sup>402</sup> an input power supply operative to supply electrical power to said power supplies; and
  - wherein said power controller is further operative to deactivate said input power during a failure occurring during one of system power on inserting one of said first and second power supplies and removing one of said first and second power supplies.

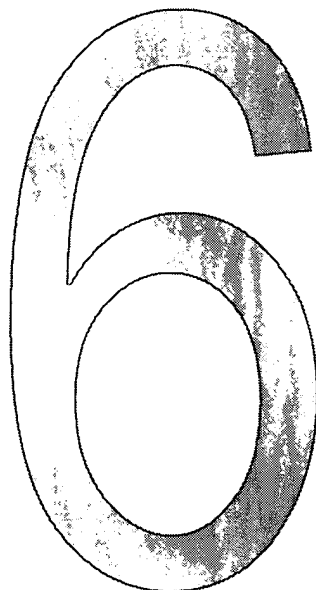
10. The system of Claim 6, wherein said load comprises a circuit board coupled with a first backplane, said system further comprising:
- a second backplane to which said first and second power supplies are coupled, wherein electrical power flows to said circuit board through said first and second backplanes.
11. An apparatus for supplying power to a load using first and second power supply means each coupled with said load, said load characterized by an electrical power requirement, said method comprising:
- (a) means for supplying electrical power to meet said electrical power requirement such that said first power supply supplies a portion of said electrical power not supplied by said second power supply;
- (b) means for detecting failure of said second power supply;
- (c) means for adjusting said first power supply to supply said electrical power requirement upon said detection; and
- (d) means for preventing said first power supply from supplying more than said portion of said electrical power not supplied by said second power supply where said second power supply has not failed.

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# Abstract



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